



(12) **United States Patent**
Bringe

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(54) **HIGH BETA-CONGLYCININ PRODUCTS
AND THEIR USE**

(75) Inventor: **Neal A. Bringe**, Saint Charles, MO
(US)

(73) Assignee: **Monsanto Company**, St. Louis, MO
(US)

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patent shall be extended for 0 days.

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A23L 2/38; A23J 1/00; A23J 1/14

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426/598; 426/648; 530/378

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Primary Examiner—Anthony J. Weier

(74) *Attorney, Agent, or Firm*—Brian K. Stierwalt

(57) **ABSTRACT**

The utility of soybeans having a composition of greater than
40% of the protein as beta-conglycinin and less than 10% of
the protein as glycinin for making highly functional high
beta-conglycinin compositions was discovered. The discov-
ered ingredients are useful for mimicking the texturizing
properties of casein while also maintaining or improving
physiological benefits of soy protein ingredients (e.g., cho-
lesterol and triglyceride lowering properties). The high
stability of the high beta-conglycinin compositions against
protein-protein aggregation reactions is valuable for creating
good tasting beverages and beverage mixes. Cheese with
good spreadability, gloss and smoothness was made using an
enzyme-modified version of the new ingredient composi-
tion. Cheese with good firmness and meltability was also
created using a different enzyme-treatment. High beta-
conglycinin compositions were found to demonstrate excel-
lent emulsifying and gelling properties in the pH region
(5.5-6.2) relevant to meat applications. High beta-
conglycinin compositions also have possible use for improv-
ing the composition of essential amino acids for infant
humans and animals.

24 Claims, No Drawings